# Your plum trees versus black knot

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*Updated from an original article written by Gretchen Voyle.*

Winter is the perfect time to scout for black knot in plum trees.

Black knot is a fungal disease that strikes fear in the hearts of owners of plum trees. It doesn't matter if they are edible plums or the decorative, landscaping variety, the trees could be fatally affected. Since twigs and branches are easily seen during winter, it is a good idea to check any plums for galls or swollen growths. Michigan State University Extension horticulture educators and Master Gardener hotlines receive many calls about black knot when the leaves are off the trees.

Black knot causes black, corky, swollen growths to form on branches, twigs and occasionally trunks. The nutrient and moisture flow is cut off to the branch that extends beyond the black knot. The spread of the disease has to do with suitable hosts and humid weather during the growing season.

**Black knot on branches and galls. Photo credit: D. Richie, University of Georgia, Bugwood.org**

Host trees are plums and occasionally cherries. Very susceptible edible plums are ‘Stanley’ and ‘Shropshire.’ For ornamentals, purple leaf plum and sand cherry are often targets. Edible plums that are moderately resistant to black knot are ‘Damson’, ‘Bluefree,’ ‘Shiro’, ‘Santa Rosa’ and ‘Formosa.’ Japanese plums are generally less susceptible. ‘President’ is the only type of edible plum that is considered highly resistant.

Black knot takes several years to develop. In the first year, small, light brown swellings are visible on the current year or last year’s twig growth, which will be towards the ends of the branches. By the next year, the swellings have grown and become olive green with a velvety appearance. During this year’s growing season, the galls swell and turn black and become misshapen. As the nutrients and moisture are cut off to the twig, the twig could become curved or bent at the location of the gall.

**Black knot on flowers and galls. Photo credit: Clemson University – USDA Cooperative Extension Slide Series, Bugwood.org**

When black knot is found, there are two choices: remove the tree or attempt to treat it. Treatment may remove a large quantity of the branches if black knot is severe. During the winter, the galls need to be pruned out. Prune at least 6 inches away from an existing gall into healthy wood. This may leave very few branches, so this may be the point when deciding whether to keep the tree needs to occur. Burn or bury the pruned black knot wood. Do not drop the pruned galls on the ground. The galls can still spread spores during the growing season. Do not prune during the growing season because the fungal spores can be spread around at this time.

Using a fungicide is recommended only for trees with severe fungal problems or valuable trees. Apply the fungicide when the trees are dormant in the spring – when there are no green buds, leaves or flowers present. Then, spray again when the flower buds color up. The fungicide is to prevent more problems; it cannot cure it. Use a fungicide that has an active ingredient of chlorothalonil or thiophanate-methyl. For many places in Michigan, it will be easier to find a fungicide with chlorothalonil. Be sure to follow the directions. The tree should be sprayed each spring following the timing given above.

Some of these plum varieties are just trouble waiting to happen. This is a very difficult fungal disease to eliminate, but for smart gardeners looking for replacement trees, they now have an idea of what not to select.